

IN THE CLAIMS

1. (Canceled)

2. (Previously Amended) The method of claim 9, wherein N is equal to 30 and K is equal to 1.

3. (Previously Amended) The method of claim 8, wherein a predeterminable number of time slots for Automatic Repeat Request transmission repeats are provided on average over time in the multiplex time frame of the data transmission.

4. (Previously Amended) The method of claim 8, wherein in the event of erroneous transmission, the data are retransmitted after having been modified.

5. (Original) The method as claimed in claim 4, wherein the data are modified by logic inversion.

6. (Previously Amended) The method of claim 8, wherein the switching frequency of an interference source is synchronized with one of the carrier frequencies associated with the discrete multitone modulation of the digital data.

7. (Previously Amended) The method of claim 8, data being transmitted via two or more two-wire lines which are routed at least partially at crosstalk distance, wherein the time division multiplex operation is carried out synchronously on all of the two-wire lines, with the result that either transmission or reception is performed simultaneously on all of the two-wire lines.

8. (Currently Amended) A method ~~for bidirectional~~ of bidirectionally transmitting digital data transmission via a two-wire line between a first station and a second station, said method comprising the steps of:

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~~transmitting digital data bidirectionally between a first station and a second station via the two-wire line, wherein only one of a transmitting operation and a receiving operation is performed at any given time in each station;~~

modulating and demodulating the digital data using discrete multitone modulation; and

separating digital data to be transmitted and the digital data to be received by time division multiplex operation, wherein said separating step comprising the steps of:

subdividing an associated multiplex time frame is subdivided into a predeterminable number of time slots, N_i ;

assigning a number first subset, K , of the time slots K being assigned exclusively to one transmission direction, and

assigning a second subset, $N-K$, of the time slots comprising the remaining number of time slots $N-K$ being assigned in the multiplex time frame exclusively to the other transmission direction; and

transmitting the digital data bidirectionally between the first station and the second station via the two-wire line utilizing the subdivided multiplex time frame, wherein only one of a transmitting operation and a receiving operation is performed at any given time in each station.

9. (Previously Added) The method of claim 8, wherein the remaining number of time slots $N-K$ constitute a majority of the predeterminable number of time slots N .

10. (Previously Added) The method of claim 6, wherein the interference source is a power supply unit.

11. (Currently Amended) A system for ~~bidirectional~~ bidirectionally transmitting digital data transmission via a two-wire line between a first station and a second station, comprising:

~~a first station connected to one end of the two-wire line;~~

~~a second station connected to the other end of the two-wire line; and~~

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~~means for transmitting digital data bidirectionally between the first and second stations via the two wire line, wherein only one of a transmitting operation and a receiving operation is performed at any given time in each station, and wherein each station includes:~~

~~means within the first and second stations for modulating and demodulating digital data using discrete multitone modulation, and;~~

~~means a time management unit within the first and second stations for separating digital data to be transmitted and the digital data to be received by time division multiplex operation, wherein ~~an associated multiplex time frame is subdivided into a predeterminable number of time slots N, a number of time slots K being assigned exclusively to one transmission direction, and the remaining number of time slots N-K being assigned exclusively to the other transmission direction~~ said time management unit including:~~

~~means for subdividing an associated multiplex time frame into a predeterminable number of time slots, N;~~

~~means for assigning a first subset, K, of the time slots exclusively to one transmission direction, and~~

~~means for assigning a second subset, N-K, of the time slots comprising the remaining number of time slots in the multiplex time frame exclusively to the other transmission direction; and~~

~~a transmitter that transmits the digital data bidirectionally between the first station and the second station via the two-wire line utilizing the subdivided multiplex time frame, wherein only one of a transmitting operation and a receiving operation is performed at any given time in each station.~~

12. (New) The system of claim 11, wherein N is equal to 30 and K is equal to 1.

13. (New) The system of claim 12, wherein the multiplex time frame has a total frame time of approximately 20.625 milliseconds, and each slot has a slot time of approximately 625 microseconds.

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14. (New) The method of claim 2, wherein the step of subdividing the associated multiplex time frame into a predeterminable number of time slots, N, includes subdividing a multiplex time frame having a total frame time of approximately 20.625 milliseconds into 30 slots, wherein each slot has a slot time of approximately 625 microseconds.
